Attorney's Docket No.: 14083/002001

In the abstract:

Please replace the abstract with the following version.

Attorney's Docket No.: 14083/002001

A linear variable transformer (LVDT) for use in a transducer. The LVDT has a non-ferromagnetic core which minimizes or reduces Barkhausen noise and thereby improve the sensitivity of the resulting measurements. In one aspect, this system may be used in an atomic force microscope.